

DDX11 (C-10): sc-515166

BACKGROUND

DEAD-box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp, are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure and ribosome/spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX11 (DEAD/H box protein 11), also known as CHLR1 or KRG2, is a member of the DEAD-box protein family and possesses both ATPase and DNA helicase activity. A homolog of the *S. cerevisiae* CHL1 protein, DDX11 is localized to the nucleus and is highly expressed in the testis, thymus, ovary, spleen and pancreas. DDX11 can bind to both single- and double-stranded DNA and is essential for proper chromosome segregation and embryonic development. Five isoforms of DDX11 exist due to alternative splicing events.

REFERENCES

1. Frank, S., et al. 1996. The human homologue of the yeast CHL1 gene is a novel keratinocyte growth factor-regulated gene. *J. Biol. Chem.* 271: 24337-24340.
2. Amann, J., et al. 1997. Localization of chi1-related helicase genes to human chromosome regions 12p11 and 12p13: similarity between parts of these genes and conserved human telomeric-associated DNA. *Genomics* 32: 260-265.
3. Amann, J., et al. 1997. Characterization of putative human homologues of the yeast chromosome transmission fidelity gene, CHL1. *J. Biol. Chem.* 272: 3823-3832.
4. Hirota, Y., et al. 2000. Characterization of the enzymatic activity of hChlR1, a novel human DNA helicase. *Nucleic Acids Res.* 28: 917-924.
5. Genini, S., et al. 2006. Radiation hybrid mapping of 18 positional and physiological candidate genes for arthrogryposis multiplex congenita on porcine chromosome 5. *Anim. Genet.* 37: 239-244.
6. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
7. Parish, J.L., et al. 2006. The DNA helicase ChlR1 is required for sister chromatid cohesion in mammalian cells. *J. Cell Sci.* 119: 4857-4865.

CHROMOSOMAL LOCATION

Genetic locus: DDX11 (human) mapping to 12p11.21, DDX12P (human) mapping to 12p13.31.

SOURCE

DDX11 (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 71-89 near the N-terminus of DDX11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515166 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DDX11 (C-10) is recommended for detection of DDX11 and DDX12 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

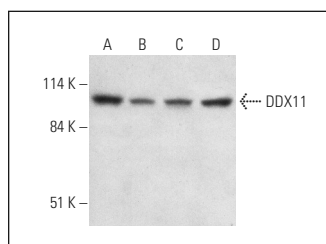
Molecular Weight of DDX11: 112 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NTERA-2 cl.D1 whole cell lysate: sc-364181 or K-562 whole cell lysate: sc-2203.

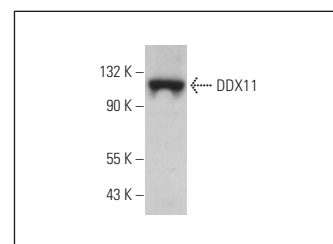
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DDX11 (C-10): sc-515166. Western blot analysis of DDX11 expression in HeLa (A), ES-2 (B), NTERA-2 cl.D1 (C) and K-562 (D) whole cell lysates.



DDX11 (C-10): sc-515166. Western blot analysis of DDX11 expression in SUP-T1 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.